

1 Claim 1. A method for implementing a segmentation addressing
2 operation comprising the steps of:
3 providing a first logical address and a segment,
4 deriving a linear address from the logical address and the segment in a
5 first discrete sub-step in which the properties of a logical address are
6 checked to determine whether those properties are consistent with the
7 criteria for addressing the segment, and
8 performing a base add operation to determine the linear address in a
9 second discrete sub-step.

1 Claim 2. A method for implementing a segmentation operation
2 comprising the steps of:
3 providing a first segment selector for deriving a linear address of a
4 segment descriptor in a first descriptor table,
5 providing a second segment selector for deriving a linear address of a
6 segment descriptor in a second descriptor table,
7 attempting an access of the first descriptor table to derive a segment
8 descriptor,
9 attempting an access of the second descriptor table to derive a segment
10 descriptor if the access of the first descriptor table fails, and
11 storing a derived segment descriptor from a successful attempted access
12 in a descriptor register.

1 Claim 3. A method as claimed in Claim 2 in which any attempt to
2 access is divided into discrete sub-steps comprising:
3 checking properties of a logical address to determine whether those
4 properties are consistent with the criteria for addressing a first descriptor
5 table in a first discrete sub-step of deriving a linear address, and
6 performing a base add operation to determine the linear address as a
7 second discrete sub-step of deriving a linear address.